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- (71) Applicant (for all designated States except US): **NATIONAL RESEARCH COUNCIL OF CANADA** [CA/CA]; Intellectual Property Services, Montreal Road, Bldg. M58, Room EG12, Ottawa, Ontario K1A 0R6 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **YOUNG, Noel,**

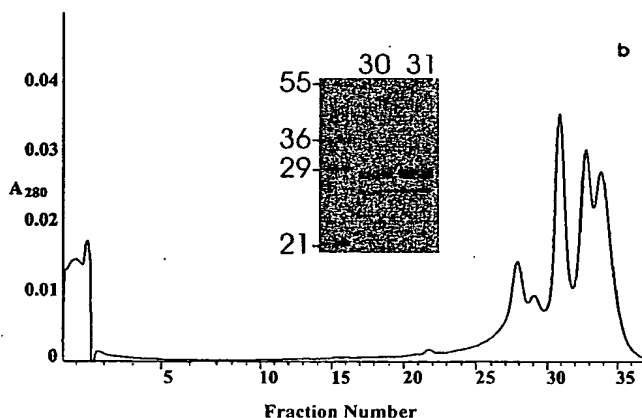
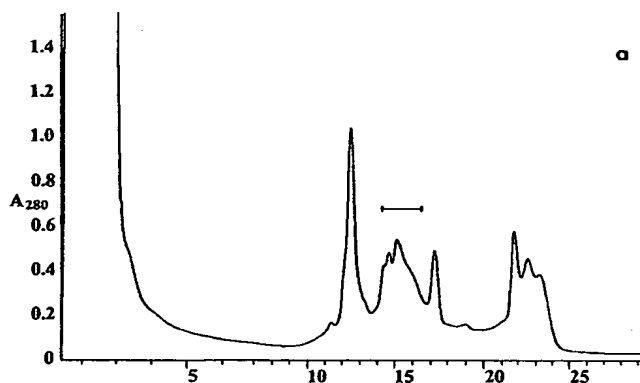
M. [CA/CA]; 51 East Park Drive, Ottawa, Ontario K1B 3Z6 (CA). **BRISSON, Jean-Robert** [CA/CA]; 14 Simcoe Street, Ottawa, Ontario K1S 1A2 (CA). **KELLY, John, Francis** [CA/CA]; 1106 Dunning Road, P.O. Box 64, Ottawa, Ontario K4 1E5 (CA). **WATSON, David, C.** [CA/CA]; 65 Melrose Avenue, Ottawa, Ontario K1Y 1T8 (CA). **SZYMANSKI, Christine, M.** [CA/CA]; 6573 Tooney Drive, Ottawa, Ontario K1C 6G3 (CA). **JARRELL, Harold, C.** [CA/CA]; 1340 Georges Vanier Driver, Ottawa, Ontario K4C 1R6 (CA).

(74) Agent: **GALLIE, Marcus, T.**; Ridout & Maybee LLP, 150 Metcalfe Street, Suite 1900, Ottawa, Ontario K2P 1P1 (CA).

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(54) Title: **CAMPYLOBACTER GLYCANS AND GLYCOPEPTIDES**



(57) Abstract: Multiple strains and species of Campylobacter were found to share a common glycan moiety which is present in a plurality of surface-exposed glycoproteins. This glycan has the formula: GalNAc- α 1,4-GalNAc- α 1,4-[Glc- β 1,3]GalNAc- α 1,4-GalNAc- α 1,4-GalNAc- α 1,3-Bac, wherein Bac is 2,4-diacetamido-2,4,6-trideoxy-D-glucopyranose.

This glycan and immunologically active fragments of it have use as vaccines against campylobacter infection in humans and animals. As well, antibodies which specifically bind these compounds may be provided. Such antibodies and vaccines may be used to prevent or neutralize campylobacter infections in livestock thereby preventing this pathogen from entering the human food chain. The glycan may be linked to one or more amino acids to form a glycopeptide. As well, a method for determining the glycan structure of an intact glycoprotein consists of subjecting a sample to high resolution magic angle spinning nuclear magnetic resonance (HR-MAS-NMR) spectroscopy.